

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the above-captioned patent application:

Listing of Claims:

1. (Canceled).
2. (Canceled).
3. (Currently Amended) An incubator as recited in Claim 62, wherein each of said inner and outer rings are supported for rotation by said at least one first drive mechanism about a central axis of an incubator housing.
4. (Canceled).
5. (Canceled).
6. (Currently Amended) An incubator as recited in Claim 3, wherein at least one of said first and second pluralities of circumferentially disposed slide element receiving areas includes at least two radially adjacent slide element receiving stations ~~disposed in said areas~~ wherein said at least one reciprocating pusher blade assembly of one of said second drive mechanisms ~~is capable of can~~ selectively radially ~~moving~~ move said at least one slide element between at least said at least two adjacent slide element receiving areas.
7. (Currently Amended) An incubator as recited in Claim 6, including at least one read station disposed in relation to one of said inner and outer rings, such that said at least one first drive mechanism can rotate one slide element receiving area into a read position, said at least one reciprocating pusher blade assembly enabling a slide element to be selectively and radially moved from a radially adjacent slide element receiving area into the read position.

8. (Original) An incubator as recited in Claim 7, including a dump station radially adjacent said read station.
9. (Previously Presented) An incubator as recited in Claim 7, wherein said read station includes a device capable of detecting an optical property of a test slide element.
10. (Original) An incubator as recited in Claim 9, wherein said device is a reflectometer .
11. (Currently Amended) An incubator as recited in Claim 62, wherein said at least one reciprocating pusher blade assembly of said at least two second drive mechanisms can selectively and radially ~~removes~~ remove at least one slide element from said incubator for later reinsertion therein.
12. (Previously Presented) An incubator as recited in Claim 7, wherein said read station includes a device capable of measuring an electrical property of a slide element.
13. (Original) An incubator as recited in Claim 12, wherein said device is an electrometer.
14. (Previously Presented) An incubator as recited in Claim 62, including a plurality of dry slide elements, each of said dry slide elements having a volume of a patient sample fluid metered thereupon prior to entry into said incubator.
15. (Currently Amended) An incubator as recited in Claim 6, wherein ~~said~~ at least one reciprocating pusher blade assembly of said at least two second drive mechanisms radially shuttles slide elements into and out of said incubator ~~housing~~.

16. (Currently Amended) An incubator as recited in Claim 15, wherein ~~said at least one reciprocating pusher blade assembly is~~ at least two of said at least two second drive mechanisms are circumferentially disposed ~~immediately adjacent~~ in relation to at least one of said ~~first~~ inner ring and said ~~second~~ outer ring.

17. (Currently Amended) An incubator as recited in Claim 15, wherein said at least one reciprocating pusher blade assembly of each of said at least two second drive mechanisms is disposed in relation to said incubator housing to shuttle at least one slide element into at least one slide element receiving station.

18. (Currently Amended) An incubator as recited in Claim 15, wherein said at least one reciprocating pusher blade assembly of each of said two second drive mechanisms ~~is capable of shuttling~~ can move at least two radially disposed slide elements into radially adjacent slide element receiving areas or receiving stations simultaneously.

19. (Currently Amended) An incubator as recited in Claim 15, including a supply of stacked slide elements, at least one said ~~reciprocating pusher blade assembly~~ second drive mechanism being disposed adjacent to said slide element supply.

20. (Currently Amended) An incubator as recited in Claim 62, wherein said at least one first drive mechanism includes a drive belt ~~drive~~ wrapped about the periphery of at least one of said inner and outer rings.

21. (Previously Presented) An incubator as recited in Claim 62, wherein said inner and outer rings are independently driven relative to one another by said at least one first drive mechanism.

22. (Previously Presented) An incubator as recited in Claim 62, wherein at least two load positions of a slide element receiving area differ in height relative to one another.

- 23. (Canceled).
- 24. (Canceled).
- 25. (Canceled).
- 26. (Canceled).
- 27. (Canceled).
- 28. (Canceled).
- 29. (Canceled).
- 30. (Canceled).
- 31. (Canceled).
- 32. (Canceled).
- 33. (Canceled).
- 34. (Canceled).
- 35. (Canceled).
- 36. (Canceled).
- 37. (Canceled).
- 38. (Canceled).
- 39. (Canceled).
- 40. (Canceled).
- 41. (Canceled).
- 42. (Canceled).
- 43. (Canceled).
- 44. (Canceled).
- 45. (Canceled).
- 46. (Canceled).
- 47. (Canceled).
- 48. (Canceled).

- 49. (Canceled).
- 50. (Canceled).
- 51. (Canceled).
- 52. (Canceled).
- 53. (Canceled).
- 54. (Canceled).
- 55. (Canceled).

56. (Currently Amended) A method as recited in Claim 63, including the additional steps of:

reading a first slide element which has been rotated into alignment with a read station;

radially driving an adjacent second slide element into alignment with said read station using at least one of said reciprocating pusher blade assemblies; and

reading said second slide element.

57. (Previously Presented) A method as recited in Claim 56, including the step of dumping each of said slide elements from said inner ring after said reading steps.

58. (Currently Amended) A method as recited in Claim 57, including the step of radially loading at least one slide element from the outer ring into said inner ring using at least one reciprocating pusher blade assembly after said dumping step.

59. (Previously Presented) A method as recited in Claim 58, wherein said loading step includes the step of simultaneously radially shuttling at least two adjacent test slide elements into radially adjacent slide element receiving areas.

60. (Canceled).

61. (Canceled).

62. (Currently Amended) A sequential tandem incubator for use in a clinical analyzer, said incubator comprising:

an inner ring and an outer ring, said outer ring including a first plurality of circumferentially disposed slide element receiving areas and said inner ring including a second plurality of circumferentially disposed slide element receiving areas, each of said first and second pluralities of slide element receiving areas being radially adjacent to one another on a common horizontal plane;

at least one first drive mechanism for driving at least one of said inner and outer rings rotationally about at least one axis and within said common horizontal plane; and

at least ~~one~~ two second drive ~~mechanism~~ mechanisms for selectively moving slide elements ~~exclusively~~ in a radial direction exclusively within ~~along~~ said common horizontal plane into and out of said incubator and between said first and second plurality of said circumferentially disposed slide element receiving areas in order to increase throughput of said incubator, each of said at least ~~one~~ two second drive ~~mechanism~~ mechanisms including at least one reciprocating pusher blade assembly for loading slide elements into one of said inner ring and said outer ring and for moving slide elements between said inner ring and said outer ring.

63. (Currently Amended) A method of incubating and reading test slide elements using a sequential random incubator in a clinical analyzer, said sequential random incubator comprising an inner ring and an outer ring, said outer ring including a first plurality of circumferentially disposed slide element receiving areas and said inner ring including a second plurality of circumferentially disposed slide element receiving areas, each of said first and second pluralities of slide element receiving areas being radially adjacent to one another within ~~on~~ a common horizontal plane, said method comprising the steps of:

radially loading at least one slide element into an empty slide element receiving area ~~using a reciprocating pusher blade assembly disposed in relation to one of said inner ring and said outer ring;~~

rotating at least one of said inner and outer rings within ~~along~~ the common horizontal plane; and

moving said at least one slide element radially between said first and second pluralities of radially adjacent slide element receiving areas of said incubator ~~along~~ within said common horizontal plane so as to improve the throughput of said incubator, wherein said radially loading and said radially moving step is steps are performed using at least ~~two one~~ reciprocating pusher blade ~~assembly assemblies~~ disposed in relation to said ~~inner ring and said outer ring~~ incubator and within said common horizontal plane.

64. (Currently Amended) An incubator as recited in Claim [[17]] 62, wherein a plurality of second drive mechanisms ~~reciprocating pusher blade assemblies~~ are disposed at predetermined circumferential locations adjacent to said inner and outer rings, each of said second drive mechanisms including a reciprocating pusher blade assembly.

65. (Currently Amended) An incubator as recited in Claim [[64]] 62, wherein at least one reciprocating pusher blade assembly is radially disposed on the interior of said inner ring.

66. (Currently Amended) An incubator as recited in Claim 64, wherein each of said plurality of second drive mechanisms ~~reciprocating pusher blade assemblies~~ are circumferentially disposed at predetermined locations about said outer ring, wherein the reciprocating pusher blade assemblies of at least two of said plurality of second drive mechanisms can load and unload at least one slide element in relation to said incubator and can further radially move at least one slide element between slide element receiving areas as the inner ring and outer ring are rotated by

Serial No.: 09/904,692
Amendment Dated: July 11, 2006
Reply to Office Action of April 14, 2006

the first drive mechanism in order to move each of said first and second pluralities of slide elements receiving areas being movable into registration with said second drive mechanism ~~capable of moving radially through each of said inner and outer rings.~~

- 67. (Canceled).
- 68. (Canceled).
- 69. (Canceled).
- 70. (Canceled).
- 71. (Canceled).